

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/12043

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> H01F17/06, H01F1/34

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> H01F17/06, H01F1/34

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

|                           |           |                            |           |
|---------------------------|-----------|----------------------------|-----------|
| Jitsuyo Shinan Koho       | 1922-1996 | Toroku Jitsuyo Shinan Koho | 1994-2003 |
| Kokai Jitsuyo Shinan Koho | 1971-2003 | Jitsuyo Shinan Toroku Koho | 1996-2003 |

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|-----------|---|-----------------------|
| Y         | JP 3108803 B2 (Minebea Co., Ltd.),<br>14 September, 2000 (14.09.00),<br>Full text; all drawings<br>& EP 980856 A & US 6210598 B   | 1-3, 5                |
| Y         | JP 3108804 B2 (Minebea Co., Ltd.),<br>14 September, 2000 (14.09.00),<br>Full text; all drawings<br>& EP 980857 A & US 6180022 B   | 1, 2, 4, 5            |
| Y         | JP 64-41202 A (Mitsubishi Petrochemical Co., Ltd.),<br>13 February, 1989 (13.02.89),<br>Full text; all drawings<br>(Family: none) | 1-5                   |

☒ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

|   |  |
|---|--|
| * Special categories of cited documents:  | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  |
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| "E" earlier document but published on or after the international filing date  | "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | "&" document member of the same patent family  |
| "O" document referring to an oral disclosure, use, exhibition or other means  |  |
| "P" document published prior to the international filing date but later than the priority date claimed  |  |

 Date of the actual completion of the international search  
17 November, 2003 (17.11.03)

 Date of mailing of the international search report  
02 December, 2003 (02.12.03)

 Name and mailing address of the ISA/  
Japanese Patent Office

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                      | Relevant to claim No. |
|-----------|---|-----------------------|
| Y         | JP 5-283223 A (Mitsubishi Electric Corp.),<br>29 October, 1993 (29.10.93),<br>Full text; all drawings<br>(Family: none) | 1-5                   |
| E,X       | JP 2003-324014 A (Minebea Co., Ltd.),<br>14 November, 2003 (14.11.03),<br>Full text; all drawings<br>(Family: none)     | 1-5                   |
| E,X       | JP 2003-282318 A (Minebea Co., Ltd.),<br>03 October, 2003 (03.10.03),<br>Full text; all drawings<br>(Family: none)      | 1-5                   |